In Claim 2(b), line 2, please delete [NO:6] and substitute therefor - - NO:5 - -

In Claim 2(b), line 3, please delete [NO:6] and substitute therefor - - NO:5 - -

5. (once amended) A method of ameliorating effects of excess bone loss, comprising administering a soluble RANK polypeptide composition to an individual at risk for excess bone loss[, and allowing the soluble RANK to bind RANKL and inhibit binding thereof to cells expressing RANK].

6. (once amended) The method of claim 5, wherein the individual is at risk from or suffers from a condition selected from the group consisting of osteoporosis, [Pagett's] Paget's disease, [and] bone cancer, multiple myeloma, melanoma, breast cancer and cancers associated with hypercalcemia.

In Claim 7(a), line 3, please delete [62] and substitute therefor - - 2 - -

In Claim 7(b), line 2, please delete [NO:6] and substitute therefor - - NO:5 - -

In Claim 7(b), line 3, please delete [NO:6] and substitute therefor - - NO:5 - -

In Claim 10(a), line 3, please delete [62] and substitute therefor - - 2 - -

In Claim 10(b), line 2, please delete [NO:6] and substitute therefor - - NO:5 - -

In Claim 10(b), line 3, please delete [NO:6] and substitute therefor - - NO:5 - -

Please add the following new claims:

13. A method of ameliorating the effects of excess bone loss comprising administering to a patient in need thereof a therapeutic composition comprising a recombinant soluble RANK polypeptide, wherein said patient suffers from a condition selected from the group consisting of squamous cell carcinoma, lung cancer, prostate cancer, hematologic cancer, head and neck cancer and renal cancer.

14. The method of claim 13, wherein the soluble RANK polypeptide is encoded by a DNA selected from the group consisting of:

(a) a DNA encoding a protein having an amino acid sequence as set forth in SEQ ID NO:2, wherein the protein has an amino terminus selected from the group consisting of an amino acid between amino acid 1 and amino acid 33, inclusive, of SEQ ID NO:2, and a carboxy terminus selected from the group consisting an amino acid between amino acid 196 and amino acid 616, inclusive;

(b) a DNA encoding a protein having an amino acid sequence as set forth in SEQ ID NO:5, wherein the protein has an amino terminus selected from the group consisting of an amino acid between amino acid 1 and amino acid 30, inclusive, of SEQ ID NO:5, and a carboxy terminus selected from the group consisting an amino acid between amino acid 197 and amino acid 625, inclusive;

(c) a DNA capable of hybridizing to the DNA of (a) or (b) under stringent conditions, and that encodes a RANK polypeptide that binds RANKL; and

(d) a DNA molecule encoding a fragment of a protein encoded by a DNA of (a), (b) or (c), wherein said fragment binds RANKL.

15. The method of claim 14, wherein the soluble RANK polypeptide is at least about 80% identical in amino acid sequence to native RANK.

16. The method of claim 13, wherein the soluble RANK polypeptide further comprises one or more polypeptides selected from the group consisting of an immunoglobulin Fc domain, an immunoglobulin Fc mutein, a FLAG™ tag, a peptide comprising at least about 6 His residues and a leucine zipper.

17. A method according to claim 4, wherein the further polypeptide is selected from the group consisting of an immunoglobulin Fc domain comprising an amino acid sequence as shown in SEQ ID NO:3 and a leucine zipper comprising an amino acid sequence as shown in SEQ ID NO:6.

18. A method according to claim 9, wherein the further polypeptide is selected from the group consisting of an immunoglobulin Fc domain comprising an amino acid sequence as shown in SEQ ID NO:3 and a leucine zipper comprising an amino acid sequence as shown in SEQ ID NO:6.